

Notes

An Intersubfamilial Courtship (Lycaenidae)

Reports of interspecific courtship are of interest because they help to define the stimuli whereby species- and sex-recognition take place. They are relatively rare in Lepidoptera (cf. Stamps and Gon, 1984, *Ann. Rev. Ecol. Syst.* 14:231-252), but the actual phenomenon is not: interspecific courtships are encountered surprisingly frequently in field work with butterflies (cf. Shapiro, 1973, *J. Lep. Soc.* 27:159, *J. Res. Lepid.* 11:197-198; 1983, *J. Res. Lepid.* 20:54). The present report concerns a courtship involving two subfamilies of the Lycaenidae (Lycaeninae and Theclinae).

At 1332 h on May 19, 1984, at Lang Crossing of the South Yuba River, west slope Sierra Nevada, Nevada Co., Calif., ca. 1660 m elevation, a male *Lycaena cupreus* W. H. Edwards was seen courting a female *Mitoura nelsoni* Bdv. which was nectaring at a flower of *Lepidium campestre* (L.) R.Br. (Cruciferae) about 15 cm above the ground. The female did not appear to notice the male at all. At 1334 he was joined by a second *L. cupreus* male, and the two then alternated positions sitting adjacent to or behind the female and flying about her during the following two and-a-half minutes. At about 1337 the second male flew off; the first male continued courtship another minute, at the end of which the female, which had moved only far enough to shift her proboscis from one flower to the adjacent one, suddenly flew. The male did not follow. The interaction thus lasted at least 6 min.

Weather conditions were: clear, light SW wind, low humidity, air temperature ca. 25°C. Both species were common in the area and fresh. The sex-ratio of *M. nelsoni* at flowers was seemingly close to unity, but only one female of *L. cupreus* was seen all day as against at least 20 males. No sexual activity was seen in *M. nelsoni*. In the morning *L. cupreus* males were mostly perching on bare soil and pursuing passing insects, but in early afternoon this activity had nearly ceased and most males were at flowers of *L. campestre*, the only common nectar source in the area. Not having seen the initiation of the courtship I cannot comment on the nature of the attractive stimulus, but the second male *Lycaena*, which had been passing by, was obviously attracted by the activity of the first male.

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A Bilateral Gynandromorph *Celastrina ebenina* (Lycaenidae)

A bilateral gynandromorph of the Dusky Blue (*Celastrina ebenina* Clench) was collected on 1 May 1984, near The Plains, Athens County, Ohio. At this locale, *ebenina* occurs abundantly on an abandoned railroad track along the north facing slope of the Hocking River channel. The host plant, *Aruncus dioicus* (Walt.), has apparently spread from an adjacent woodland and is common on the abandoned cinder bank.

Dorsally the left half of the specimen is male in appearance and is dark gray with a very light scattering of blue scales basally on both wings (Figure 1). The right half of the gynandromorph is female in appearance and both wings are gray along the costal area and distal margins. The median area of both wings are whitish-blue.

Ventrally there are several differences between the two halves especially in the configuration of several bands of spots, the most noticeable of which is the post median series of the forewing. In the male the individual spots that make up this series tend to angle sharply toward the wing margin, especially in cells mu_2 - m_3 and m_3 - cu_1 . In the female half the individual spots run more parallel with the wing margin. Examination of additional specimens in the authors' collections indicate that this sexual difference is probably consistent.

The genitalia of the gynandromorph were dissected and determined to be male. Further, the genitalia show no abnormalities and easily fall within the range of variation seen in other Ohio material. The only prothoracic leg present (right) has fused tarsi, a male characteristic. The remaining legs, antennae and palps were examined, but no differences between the two halves of the gynandromorph were apparent. The gynandromorph is in the J. W. Peacock collection.

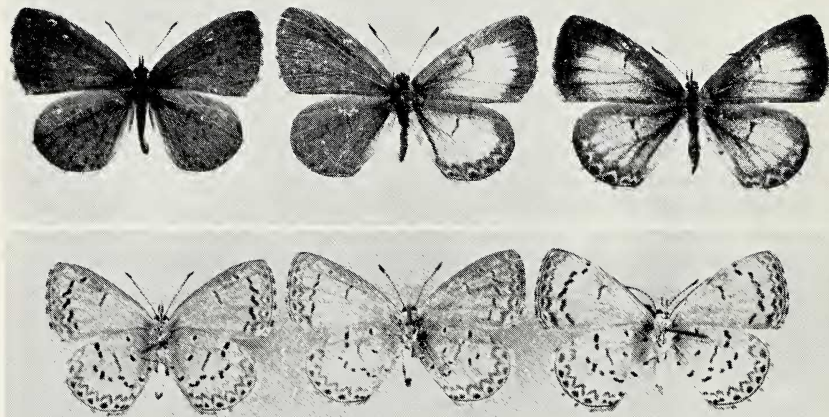


Fig. 1. Normal and gynandromorphic *Celastrina ebenina* from Ohio. Dorsal view (top row, left to right): Male, gynandromorph (left half male, right half female), and female. Ventral surface (bottom row, left to right): Male, gynandromorph (left half female, right half male), and female.

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